TM G 型锁系列弹匣

3D 打印项目技术文档

（v1.1）

By Vietnam Airsoft

注意事项

本项目仅推荐用于研究及辅助产品开发而非直接打印使用，为避免可能出现的资源浪费、法律风险，请不要这么做。

This project is only recommended for research and development rather than 3D printing, In order to avoid possible resources wast、 legal risks, Please don't do that.

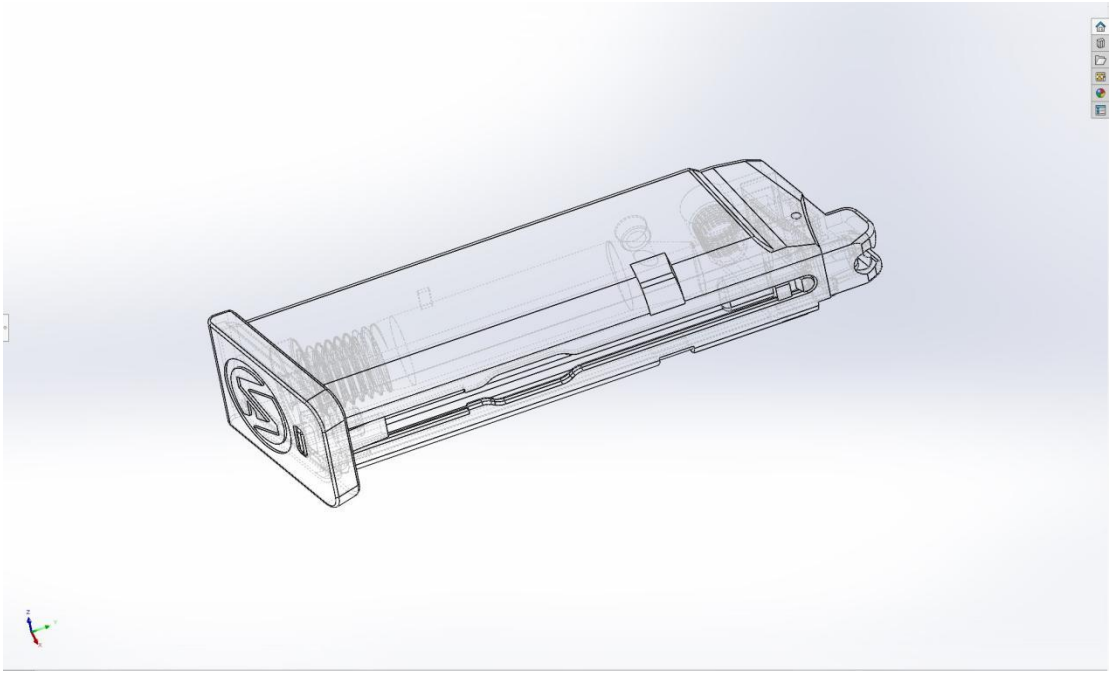
未经专业指导下的操作可能会造成人身伤害，如果你居住在 Airsoft 玩具枪合法的国家或地区，那么就应该不存在任何制作 3D 打印杂志的理由或必要性。

Unsupervised operation may cause personal injury, If you live in a country where Airsoft guns are legal, there shouldn't be any reason or necessity to make a 3D printed magazine.

符合当地相关法律的前提下，本项目允许用作商业用途。（本项目原始文件不适用于大规模生产）

Commercial use of this project is permitted, as long as it does not violate local laws. (The original file of this project is not suitable for mass production)

https://grabcad.com/vietnam.airsoft-1/models



更新历史 Update history

v1.0
-原始版本 Original version
v1.1
-更好的结构设计 Better structural design

工具/零件清单 Tools/Parts requirements

工具 Tools

规格	注释
M9X0.5 丝锥 M9X0.5 Thread tap 用于出气阀 For output valve	
M4.5X0.5 丝锥 M4.5X0.5 Thread tap 用于近气阀 For intput valve	

零件 Parts

规格	注释
一般 TM G 系列进、出气阀 General TM G series input and output valve （and valve key）	

一般 TM G 系列出气胶皮 General TM G series lip seal	
M2X16 插销 M2X16 Pin	
0.4X5.5X10X120/150/170mm 弹簧 0.4X5.5X10X120/150/170mm Spring Or general TM G series Mag spring	
M14X12mm ED 堵头 M14X12mm Blanking plug	

12 克随机铜制零件 12 grams random copper parts	

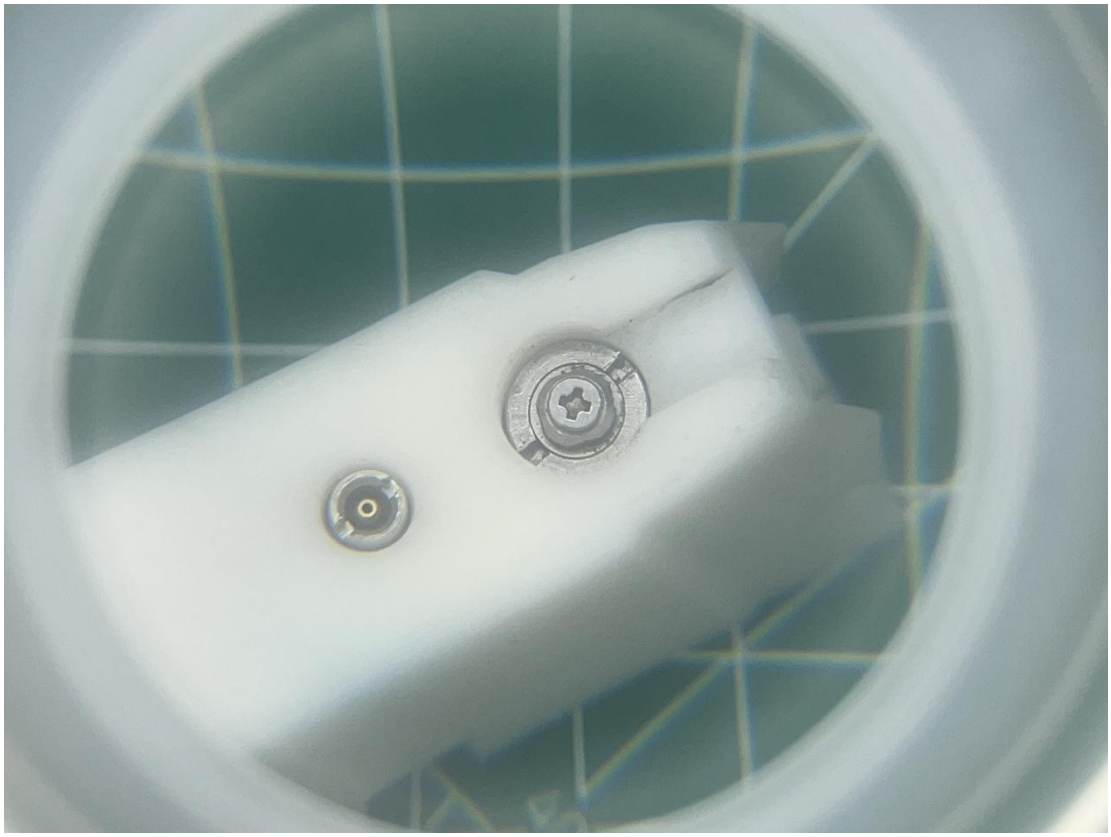
打印/组装/测试 Print/Assemble/Test

根据多次测试得出的结论，最适合制作弹匣主体的是 SLA 打印，其他成型技术（FDM、MJF、SLS）制作的零件相对难以保持弹匣的气密（甚至不可能）。

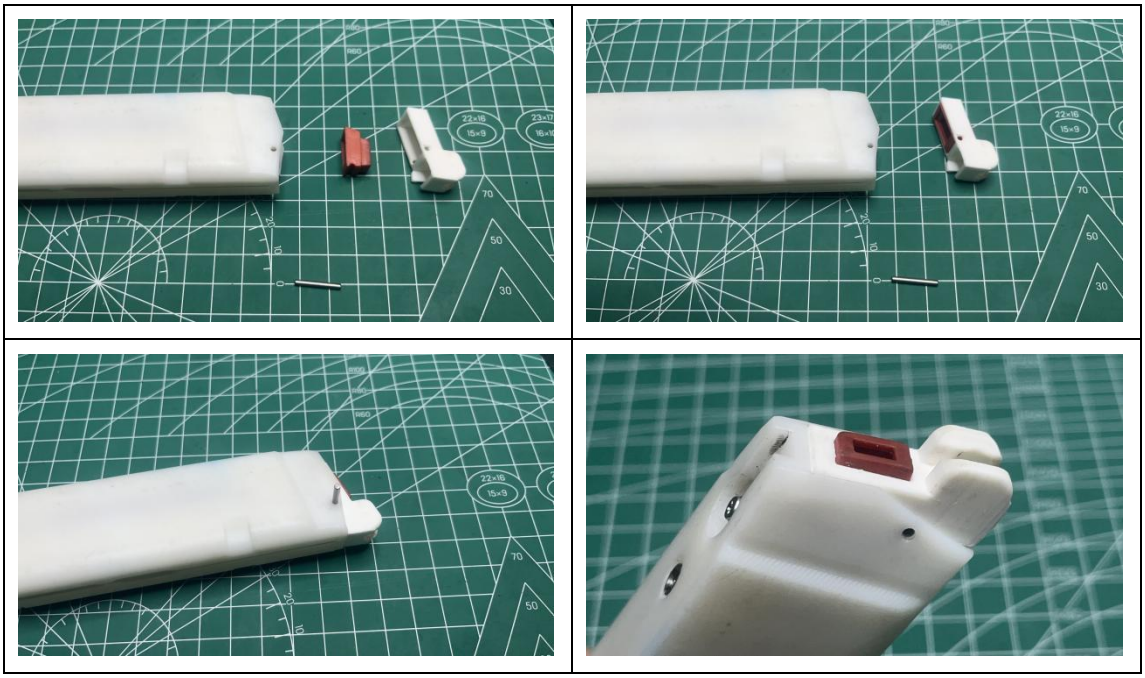
According to several tests, SLA printing is the most suitable for making magazine body, other forming techniques (FDM, MJF, SLS) are relatively difficult (or even impossible) to keep the magazine body sealed.

在组装之前，需要对弹匣主体的气阀接口进行手动攻丝，粗暴的操作有可能会导致该部件彻底丧失密封性。

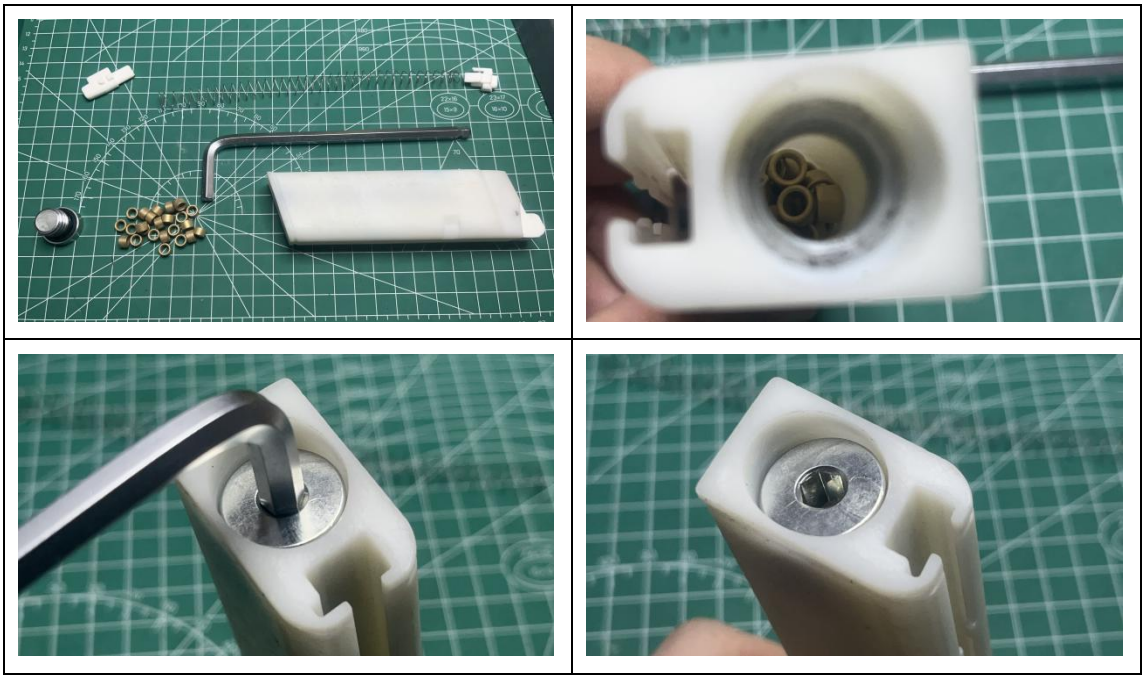
Before assembly, it is necessary to manually tap the input/output valve thread on the magazine body, and rough operation may result in a complete loss sealingof the component.



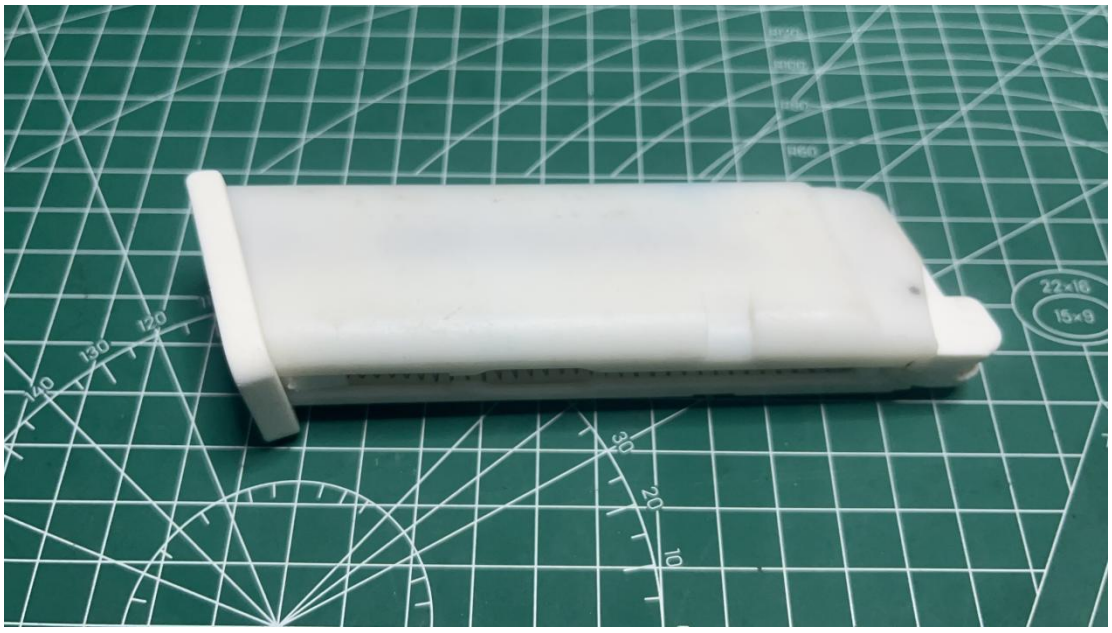
（1）抱弹嘴、胶皮　Lip&Seal



（2）金属填充物、底部密封　Metal filling、Blanking plug



（3）推弹杆、弹簧、底板　Follower、Spring、Base Plate



3D 打印弹匣的首次密封测试建议使用 R134a 或压力更低的瓦斯进行，并在做好保护措施的前提下静置 10~20 分钟左右，最后再观察主体是否存在破裂或损坏迹象。

The first time seal test of the 3D printed magazine is recommended to use 8kg/f or any lower pressure gas,let it sit for about 10 to 20 minutes under good protection measures, and then observe the mag body whether is cracked or damaged.

任何情况下，3D 打印弹匣承受的瓦斯压力都不应该超过 12kg，考虑到所使用材料的差异，弹匣主体有可能会出现不同程度的变形/鼓起，如果弹匣无法插入弹匣井，请停止使用并更

换打印材料。

In any case, the gas pressure in the 3D printed magazine should not exceed 12kg/f, Consider the differences between the printing materials used, the body of the magazine may be deformed/bulging to varying degrees, if the magazine cannot be inserted into the magazine well, please stop using and replace the printing material.

性能表现 Performance

在一般环境下，3D 打印弹匣的一次充气（12kg）能够稳定射击至少 10 次（或更多），理想环境下，稳定射击次数的极限是 20 次。

Under normal conditions, a full filling (12kg/f) of a 3D printed magazine can have at least 10 (or more)Stable shots, in ideal conditions, the limit of stable shots is 20.

PLAY FREE, OR

RUN